

CLAIMS

1. A steam-generating warming article comprising a steam generating element making use of chemical energy and which is adapted to supply steam while in contact with the surface of the body, wherein
 - 5 the steam-generating warming article, while being in contact with the surface of the body, maintains a body surface temperature at 38° to 49°C over a period of 3 to 15 hours and has a steam generating ability such that a cumulative amount of released steam ranges from 0.5 to 12 mg/3 hr-cm².
2. The steam-generating warming article according to claim 1, wherein the steam
 - 10 generating element makes use of an oxidation reaction of an oxidizable metal.
3. The steam-generating warming article according to claim 2, wherein the steam generating element comprises a heat generating sheet, the heat generating sheet being a molded sheet containing the oxidizable metal, a reaction accelerator, and a fibrous material, having incorporated therein an aqueous electrolyte solution, and wherein the
 - 15 heat generating sheet generates heat upon contact with air,
 - wherein the molded sheet contains 60% to 90% by weight of the oxidizable metal, 5% to 25% by weight of the reaction accelerator, and 5% to 35% by weight of the fibrous material, and
 - wherein the heat generating sheet comprises
 - 20 40 to 80 parts by weight of the aqueous electrolyte solution containing 1% to 15% by weight of an electrolyte per 100 parts by weight of the molded sheet.
4. The steam-generating warming article according to claim 3, comprising a steam-generating warming sheet having the heat generating sheet and a holder for holding the heat generating sheet,
 - 25 the holder having air permeability in at least a part thereof to allow steam to be released outside through the holder, and
 - the air permeable part of the holder having a water vapor transmission rate of 300 to 2000 g/m²·24 hr (JIS Z0208, 40°C, 90% RH).
5. The steam-generating warming article according to claim 4, wherein the

steam-generating warming sheet has a steam release area of 0.001 to 0.25 m².

6. The steam-generating warming article according to any one of claims 1 to 5, being put into an individual package labeled to indicate that the steam-generating warming article is for improving a human body's physiology.

5 7. The steam-generating warming article according to claim 6, wherein the package is labeled to the effect that application to the lower back reduces or eliminates lower back pain.

8. The steam-generating warming article according to claim 6, wherein the package is labeled to the effect that application to the abdomen reduces or eliminates
10 abdominal pain.

9. The steam-generating warming article according to claim 6, wherein the package is labeled to the effect that application to the lower back and/or the abdomen improves the gastrointestinal functions.

10. The steam-generating warming article according to claim 6, wherein the
15 package is labeled to the effect that application to the lower back and/or the abdomen helps recover from fatigue.

11. A method of using the steam-generating warming article set forth in claim 1, comprising applying the steam-generating warming article to the surface of a body to supply steam and maintain the skin surface temperature at 38° to 49°C over a period of
20 3 to 15 hours.

12. A steam-generating warming sheet comprising a heat generating sheet and a holder for holding the heat generating sheet, the heat generating sheet being a molded sheet containing an oxidizable metal, a reaction accelerator, and a fibrous material, the heat generating sheet having incorporated therein an aqueous electrolyte solution, and
25 generating heat on contact with air, the holder having air permeability in at least a part thereof to allow steam to be released outside therethrough,

the molded sheet containing 60% to 90% by weight of the oxidizable metal, 5% to 25% by weight of the reaction accelerator, and 5% to 35% by weight of the fibrous material,

the heat generating sheet having incorporated therein 40 to 80 parts by weight of an aqueous solution containing 1% to 15% by weight of an electrolyte per 100 parts by weight of the molded sheet, and

the air permeable part of the holder having a water vapor transmission rate of 300 to 2000 g/m²·24 hr (JIS Z0208, 40°C, 90% RH).

13. The steam-generating warming sheet according to claim 12, wherein a weight ratio of the reaction accelerator to the oxidizable metal is 0.1 to 0.3, and a weight ratio of the fibrous material to the oxidizable metal is 0.1 to 0.3.

14. The steam-generating warming sheet according to claim 12 or 13, wherein a ratio of the weight of the molded sheet to the area of the steam-generating warming sheet is 0.03 g/cm² to 0.17 g/cm².

15. The steam-generating warming sheet according to any one of claims 12 to 14, wherein the molded sheet has a thickness of 0.1 mm to 2 mm.

16. The steam-generating warming sheet according to any one of claims 12 to 15, wherein the molded sheet is a sheet formed by a papermaking process.

17. The steam-generating warming sheet according to any one of claims 12 to 16, wherein the heat generating sheet has a large number of holes or cuts.

18. A steam-generating warming sheet comprising a heat generating sheet and a holder for holding the heat generating sheet, the heat generating sheet being a molded sheet containing an oxidizable metal, a reaction accelerator, a fibrous material, and an electrolyte, having water incorporated therein, and generating heat on contact with air, the holder having air permeability in at least a part thereof to allow steam to be released outside therethrough,

the molded sheet containing 50% to 85% by weight of the oxidizable metal,

4.5% to 25% by weight of the reaction accelerator, and 4.5% to 35% by weight of the fibrous material, and 0.004% to 11% by weight of the electrolyte,

the heat generating sheet having 30 to 80 parts by weight of water incorporated therein per 100 parts by weight of the molded sheet, and

5 the air permeable part of the holder having a water vapor transmission rate of 300 to 2000 g/m²·24 hr (JIS Z0208, 40°C, 90% RH).

19. A steam-generating warming sheet comprising a heat generating sheet and a holder for holding the heat generating sheet, the heat generating sheet being a molded sheet containing an oxidizable metal, a reaction accelerator, a fibrous material, and
10 water, having an electrolyte incorporated therein, and generating heat on contact with air, the holder having air permeability in at least a part thereof to allow steam to be released outside therethrough,

the molded sheet containing 30% to 65% by weight of the oxidizable metal, 2.5% to 20% by weight of the reaction accelerator, 2.5% to 30% by weight of the
15 fibrous material, and 25% to 45% by weight of the water,

the heat generating sheet having 0.2 to 10 parts by weight of an electrolyte incorporated therein per 100 parts by weight of the molded sheet, and

the air permeable part of the holder having a water vapor transmission rate of 300 to 2000 g/m²·24 hr (JIS Z0208, 40°C, 90% RH).

20. The steam-generating warming sheet according to claim 12, 18 or 19, which is used as supported in or on an attachment belt with the air permeable part of the holder facing outward.

21. A package of a steam-generating warming sheet comprising an oxygen barrier wrapper and the steam-generating warming sheet according to claim 12, 18 or 19
25 air-tightly packaged in the wrapper.